WEST Search History

DATE: Tuesday, December 16, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB,JPAB,DWPI; PLUR=YES; OP=ADJ		
L9	l1 same endothelial cell same connective tissue	2	L9
L8	L7 and (collagen or VEGF)	317	L8
L7	l1 and endothelial cell and connective tissue and angiogenesis	317	L7
L6	l1 same in vitro	5	L6
L5	l3 and L4	14	L5
L4	culture near3 in vitro	892	L4
L3	L1 and angiogen$	417	L3
L2	L1 same microvessel	1	L2
L1	artificial near3 skin	2644	L1

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TERMINAL (ENTER 1, 2, 3, OR ?):2


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              present
 NEWS 4  AUG 05  New pricing for EUROPATFULL and PCTFULL effective
              August 1, 2003
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 NEWS 6  AUG 18  Data available for download as a PDF in RDISCLOSURE
 NEWS 7  AUG 18  Simultaneous left and right truncation added to PASCAL
 NEWS 8  AUG 18  FROSTI and KOSMET enhanced with Simultaneous Left and
Righ
              Truncation
 NEWS 9  AUG 18  Simultaneous left and right truncation added to ANABSTR
 NEWS 10 SEP 22  DIPPR file reloaded
 NEWS 11 DEC 08  INPADOC: Legal Status data reloaded
 NEWS 12 SEP 29  DISSABS now available on STN
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 NEWS 14 OCT 21  BIOSIS file reloaded and enhanced
 NEWS 15 OCT 28  BIOSIS file segment of TOXCENTER reloaded and enhanced
 NEWS 16 NOV 24  MSDS-CCOHS file reloaded
 NEWS 17 DEC 08  CABA reloaded with left truncation
 NEWS 18 DEC 08  IMS file names changed
 NEWS 19 DEC 09  Experimental property data collected by CAS now available
              in REGISTRY
 NEWS 20 DEC 09  STN Entry Date available for display in REGISTRY and
CA/CAplus
 NEWS 21 DEC 17  DGENE: Two new display fields added
 NEWS 22 DEC 18  BIOTECHNO no longer updated
 NEWS 23 DEC 19  CROPU no longer updated; subscriber discount no longer
              available
 NEWS 24 DEC 22  Additional INPI reactions and pre-1907 documents added to
CAS
              databases
 NEWS 25 DEC 22  IFIPAT/IFIUDB/IFICDB reloaded with new data and search
fields
 NEWS 26 DEC 22  ABI-INFORM now available on STN

 NEWS EXPRESS  NOVEMBER 14 CURRENT WINDOWS VERSION IS V6.01c,
CURRENT
          MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
          AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
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=> s artificial (3a) skin
L1       1521 ARTIFICIAL (3A) SKIN

=> s l1 and (angiogen? or vessel or microvessel)
L2         98 L1 AND (ANGIOGEN? OR VESSEL OR MICROVESSEL)

=> s l2 and human adult lung microvascular cell
L3          0 L2 AND HUMAN ADULT LUNG MICROVASCULAR CELL

=> s l2 and hMVEC
L4          0 L2 AND HMVEC

=> s l2 and epithelium
L5          7 L2 AND EPITHELIUM

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6          7 DUP REM L5 (0 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L6  ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2003 ACS on STN
AN  2003:261714  CAPLUS
DN  138:292821
TI  Method of preparing basement membrane, method of constructing basement
    membrane specimen, reconstituted artificial tissue using the basement
    membrane specimen and process for producing the same
IN  Mochitate, Katsumi
PA  Japan Science and Technology Corporation, Japan
SO  PCT Int. Appl., 85 pp.
    CODEN: PIXXD2
DT  Patent
LA  Japanese
FAN.CNT 3
    PATENT NO.      KIND  DATE         APPLICATION NO.  DATE
    --------------- ----  -------      ---------------  --------
PI  WO 2003026712   A1    20030403     WO 2002-JP9841   20020925
        W: US
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT,
            LU, MC, NL, PT, SE, SK, TR
    JP 2003093050   A2    20030402     JP 2001-292510   20010925
    JP 2003093053   A2    20030402     JP 2001-292676   20010925
    JP 2003169846   A2    20030617     JP 2002-278243   20020924
    JP 2003169847   A2    20030617     JP 2002-278244   20020924
PRAI JP 2001-292510  A    20010925
    JP 2001-292675  A     20010925
    JP 2001-292676  A     20010925
    JP 2001-292677  A     20010925
    JP 2002-278243  A     20020924
    JP 2002-278244  A     20020924
AB  A basement membrane is formed by culturing cells on a substrate wherein
    the basal face of cells capable of forming a basement membrane has been
    coated with a polymer having a sugar chain capable of localizing a
    receptor having an effect of accumulating basement membrane-constituting
    components. The basement membrane specimen is constructed by treating
    cells, which are capable of forming a basement membrane and have been
    adhered to a support via the basement membrane, with a surfactant to
    solubilize lipid components of the cells and solubilizing proteins
    remaining on the basement membrane surface with the use of a mixt. of an
    alkali soln. with a protease inhibitor. An artificial tissue is obtained
    by inoculating and culturing desired cells capable of forming a basement
    membrane. Using a hydrophobic bond adsorption polymer having a linear
    carbon skeleton with a hydrophobic nature and a functional group capable
    of reacting with a protein (for example, an alternate copolymer of Me
    vinyl ether with maleic anhydride), a protein support is tentatively
    adhered to a plastic surface and a basement membrane specimen or an
    artificial tissue is formed thereon. Thus, the protein support carrying
    the basement membrane specimen or the artificial tissue thereon can be
    phys. sepd. from the plastic surface when needed. Sugar chain-contg.
    vinyl polymer (PV-GluNAc, PV-CA, or PV-Lam) was applied to fibrous
    collagen gel formed on a polyethylene terephthalate membrane in a culture
    well for culture of human pulmonary artery vascular endothelial cells to
    obtain a basement membrane.
RE.CNT 1    THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
RECORD
        ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6  ANSWER 2 OF 7  CAPLUS  COPYRIGHT 2003 ACS on STN
AN  2003:455076  CAPLUS
DN  139:12220
TI  Engineered animal skin tissue
IN  Martins-Green, Manuela; Li, Qijing
PA  The Regents of the University of California, USA
SO  U.S. Pat. Appl. Publ., 41 pp.
    CODEN: USXXCO
DT  Patent
LA  English
FAN.CNT 1
    PATENT NO.      KIND  DATE         APPLICATION NO.  DATE
    --------------- ----  -------      ---------------  --------
PI  US 2003109920   A1    20030612     US 2001-12194    20011206
PRAI US 2001-12194       20011206
AB  An in vitro, three dimensional artificial tissue that resembles human skin
```

has been developed. Microvascular endothelial cells from human adult lung were sandwiched between two layers of human dermal fibroblasts in three dimensional collagen gels. The sandwich was covered with keratinocytes. The cultures were self-maintained for prolonged periods of time without the addn. of tumor promoters such as phorbol esters. Over a few days, the keratinocytes developed into a multilayered ***epithelium*** . Microvessels were produced in the support matrix. The microvessels were composed of a tight monolayer of endothelial cells surrounded by a continuous basal lamina, contacted by newly formed, sparse perioendothelial cells. The microvessels also contained newly formed blood cells. Human matrix mols. characteristic of skin were produced. This artificial tissue is an in vitro system that closely resembles human skin, and provides both a powerful model to study cellular and mol. mechanisms involved in skin development and replacement and a basis for a new generation skin replacement product.

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:615807 CAPLUS
DN 137:165826
TI Method of isolating epithelial cells, method of preconditioning cells, and methods of preparing bioartificial skin and dermis with the epithelial cells or the preconditioned cells
IN Son, Young-Sook; Park, Hyun-Sook; Kim, Chun-Ho; Kang, Hyun-Ju; Kim, Chang-Hwan; Kim, Youn-Young; Choi, Young-Ju; Lee, Su-Hyun; Gin, Yong-Jae
PA Korea Atomic Energy Research Institute, S. Korea
SO PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002062971	A1	20020815	WO 2001-KR1873	20011106

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI KR 2001-5934 A 20010207
KR 2001-47723 A 20010808
AB A method of isolating epithelial cells from a human skin tissue or internal organ tissue using trypsin and EDTA simultaneously with the application of magnetic stirring, a method of preconditioning isolated biol. cells by the application of phys. stimulus, i.e., strain, are provided. Epithelial cells can be isolated by the method with increased yield, colony forming efficiency (CFE), and colony size. Also, the increased percentage of stem cells in isolated cells is advantageous in therapeutic tissue implantation by autologous or allogeneic transplantation. In skin cells preconditioned by the application of strain, cell division is facilitated, and the secretion of extracellular matrix components and growth factors and the activity of matrix metalloproteinases (MMPs) are improved. When preconditioned cells are implanted by autologous or allogeneic transplantation to heal a damaged tissue, the improved cell adhesion, mobility, and viability provides a biol. adjustment effect against a variety of stresses or phys. stimuli which the cells would undergo after implantation, with improved capability of integration into host tissue, thereby markedly improving the probability of success in skin grafting.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:695600 CAPLUS
DN 137:206523
TI Substances that promote wound healing by inhibition of cell apoptosis and application to ***artificial*** ***skin*** tissues
IN Freyberg, Mark Andre; Friedl, Peter; Kaiser, Dirk
PA Cytotools G.m.b.H., Germany
SO Ger. Offen., 34 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 10109136	A1	20020912	DE 2001-10109136	20010226
WO 2002083160	A2	20021024	WO 2002-EP1828	20020221
WO 2002083160	A3	20031002		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1368052	A2	20031210	EP 2002-761890	20020221

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI DE 2001-10109136 A 20010226
WO 2002-EP1828 W 20020221
AB The invention concerns wound healing substances that bind either to IAP, integrin .alpha.v.beta.3 or thrombospondin-1 in a way that the binding between thrombospondin-1 and IAP and/or integrin .alpha.v.beta.3 becomes inhibited. Various cell cultures can be established that express integrin .alpha.v.beta.3 and IAP; apoptosis-inducing agents are added; test substances are screened for apoptosis inhibition. Substances are selected from apoptosis-specific calcium flux blockers, e.g. bFGF, peptides, antibodies. The substances and method can be used in tissue engineering for skin transplants.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:878437 CAPLUS
TI Biomaterials for plastic and reconstructive surgery
AU Suzuki, Shigehiko; Ito, Osamu; Muneuchi, Gan; Kawazoe, Takeshi
CS Department of Plastic and Reconstructive Surgery, Kagawa Medical University, Ikenobe, Miki-cho, Kagawa, 761-0793, Japan
SO Recent Research Developments in Biomaterials (2002), 253-274. Editor(s): Ikada, Yoshito. Publisher: Research Signpost, Trivandrum, India.
CODEN: 69ESA9; ISBN: 81-7736-123-6
DT Conference
LA English
AB In plastic and reconstructive surgery, various biomaterials are used clin. We describe these biomaterials, dividing this chapter into four sections; 2. Materials for implantation, 3. Wound dressings and ***artificial*** ***skin*** , 4. Reconstruction of skin and hair, and 5. Materials for hand surgery, microsurgery and craniofacial surgery. Materials for implantation include silicone, ceramics, collagen, hyaluronic acid, and regeneration of bone and cartilage. Wound dressings and ***artificial*** ***skin*** include synthetic wound dressings, biol. wound dressings, cultured ***epithelium*** , acellular ***artificial*** ***skin*** (***artificial*** dermis), and cellular ***artificial*** ***skin*** (cultured ***skin***). Reconstruction of skin and hair include tissue expander and artificial hair. Materials for hand surgery, microsurgery and craniofacial surgery include artificial nail, small-caliber ,artificial ***vessel*** , artificial nerve and miniplate, callotasis.

L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:396524 CAPLUS
DN 135:1281
TI Vectors capable of immortalizing non-dividing cells, cells immortalized with said vectors and their use
IN Occhidoro, Teresa; Salmon, Patrick; Trono, Didier
PA Universite de Geneve, Switz.
SO Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1103615	A1	20010530	EP 1999-123498	19991125

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
WO 2001038548 A2 20010531 WO 2000-EP11723 20001124
WO 2001038548 A3 20011018

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1244798	A2	20021002	EP 2000-989880	20001124

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2003514565 T2 20030422 JP 2001-539890 20001124
PRAI EP 1999-123498 A 19991125
WO 2000-EP11723 W 20001124
AB A vector encoding at least one immortalization mol. which is capable of transporting a transgene into the nucleus of a slowly growing or nondividing cell and stably integrating said transgene into the genome of the cell is disclosed. Immortalized cells produced with such vectors and the use of these cells, e.g., immortalized .beta. cells to prep. an artificial pancreas, to immortalized keratinocytes to produce skin, or immortalized B cells produce monoclonal antibodies, are also disclosed. Thus, HIV-1-based vectors encoding the SV40 large T antigen or telomerase were used to immortalized liver sinusoidal endothelial cells. These cells have been maintained in culture for 9 mo (>60 passages) and have maintained features typical of these cells. The vectors contain loxP sites so that the immortalizing gene can be removed upon exposure to Cre recombinase.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:77667 CAPLUS
DN 130:136300
TI Methods for the preparation of artificial cellular tissue using matrix metalloproteinase inhibitors
IN Wolowacz, Richard; Wolowacz, Sorrel; Sheridan, Julie Marie
PA Smith & Nephew PLC, UK
SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9903979	A1	19990128	WO 1998-GB2147	19980717
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9884514	A1	19990210	AU 1998-84514	19980717
PRAI GB 1997-14936		19970717		
WO 1998-GB2147		19980717		

AB There is disclosed the use of matrix metalloproteinase (MMP) inhibitors, e.g. collagenase, stromelysin, or gelatinase inhibitors in the prodn. of tissue equiv. The inhibitors are used in particular to inhibit MMPs present in animal serum used in the prodn. technique, thereby increasing collagen deposition. Tissue culture media and extd. animal serum contg. a supplemented MMP inhibitor are also disclosed. Polylactic acid yarns seeded with fibroblasts of human fetal foreskin were cultured with media supplemented with doxycycline. Increased collagen content was obsd. in the test samples compared to control (lacking doxycycline).
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 15:49:06 ON 23 DEC 2003)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 15:49:10 ON 23 DEC 2003
L1 1521 S ARTIFICIAL (3A) SKIN
L2 98 S L1 AND (ANGIOGEN? OR VESSEL OR MICROVESSEL)
L3 0 S L2 AND HUMAN ADULT LUNG MICROVASCULAR CELL
L4 0 S L2 AND HMVEC
L5 7 S L2 AND EPITHELIUM
L6 7 DUP REM L5 (0 DUPLICATES REMOVED)

=> s l2 and perioendothelial
L7 1 L2 AND PERIOENDOTHELIAL

=> d bib abs

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:455076 CAPLUS
DN 139:12220
TI Engineered animal skin tissue
IN Martins-Green, Manuela; Li, Qijing
PA The Regents of the University of California, USA
SO U.S. Pat. Appl. Publ., 41 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003109920	A1	20030612	US 2001-12194	20011206
PRAI US 2001-12194		20011206		

AB An in vitro, three dimensional artificial tissue that resembles human skin has been developed. Microvascular endothelial cells from human adult lung were sandwiched between two layers of human dermal fibroblasts in three dimensional collagen gels. The sandwich was covered with keratinocytes. The cultures were self-maintained for prolonged periods of time without the addn. of tumor promoters such as phorbol esters. Over a few days, the keratinocytes developed into a multilayered epithelium. Microvessels were produced in the support matrix. The microvessels were composed of a tight monolayer of endothelial cells surrounded by a continuous basal lamina, contacted by newly formed, sparse ***perioendothelial*** cells. The microvessels also contained newly formed blood cells. Human matrix mols. characteristic of skin were produced. This artificial tissue is an in vitro system that closely resembles human skin, and provides both a powerful model to study cellular and mol. mechanisms involved in skin development and replacement and a basis for a new generation skin replacement product.

=> s l2 and mononuclear cell
L8 0 L2 AND MONONUCLEAR CELL

=> s l2 and mononuclear
L9 0 L2 AND MONONUCLEAR

=> d his

(FILE 'HOME' ENTERED AT 15:49:06 ON 23 DEC 2003)

FILE 'BIOSIS, EMBASE, CAPLUS' ENTERED AT 15:49:10 ON 23 DEC 2003
L1 1521 S ARTIFICIAL (3A) SKIN
L2 98 S L1 AND (ANGIOGEN? OR VESSEL OR MICROVESSEL)
L3 0 S L2 AND HUMAN ADULT LUNG MICROVASCULAR CELL
L4 0 S L2 AND HMVEC
L5 7 S L2 AND EPITHELIUM
L6 7 DUP REM L5 (0 DUPLICATES REMOVED)
L7 1 S L2 AND PERIOENDOTHELIAL
L8 0 S L2 AND MONONUCLEAR CELL
L9 0 S L2 AND MONONUCLEAR

=> s l2 and Vitrogen
L10 0 L2 AND VITROGEN

=> s l2 not l5
L11 91 L2 NOT L5

=> dup rem l11
PROCESSING COMPLETED FOR L11
L12 85 DUP REM L11 (6 DUPLICATES REMOVED)

=> s l12 and py<=2001
2 FILES SEARCHED...
L13 65 L12 AND PY<=2001

=> d bib abs 1-20

L13 ANSWER 1 OF 65 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
AN 1988:268283 BIOSIS
DN PREV198886007527; BA86:7527
TI EFFECTS OF HEPARIN ON VASCULARIZATION OF ***ARTIFICIAL*** ***SKIN***
GRAFTS IN RATS.
AU EHRLICH H P [Reprint author]; JUNG W K; COSTA D E; RAJARATNAM J B M
CS SHRINERS BURNS INST, MASSACHUSETTS GENERAL HOSP, BOSTON, MASSACHUSETTS
02114, USA
SO Experimental and Molecular Pathology, (1988) Vol. 48, No. 2, pp. 244-251.
CODEN: EXMPA6. ISSN: 0014-4800.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 2 Jun 1988
Last Updated on STN: 2 Jun 1988
AB ***Artificial*** ***skin*** is recent development in the clinical care of the severely burned patient. Its manufacture entails the covalent bonding of collagen and polysaccharide, followed by the coating of one surface with a thin layer of silicone rubber. ***Artificial*** ***skin*** was grafted onto rats and examined for neovascularization at 7 days. Vascular patency was shown by perfused yellow latex casts. Five percent of the patent vessels grew into the graft soaked in physiological buffered saline (PBS). When the graft was soaked in heparin, 1 mg/ml buffered saline solution, before grafting, 54% of the patent vessels in the grafted area had grown into the matrix. These experiments show that the local application of heparin promotes early ingrowth of blood vessels into the healing site. The vascularity of ***artificial*** ***skin*** can be modified by heparin, which promotes ***angiogenesis*** , and leads to earlier deposits of greater amounts of new connective tissue.

L13 ANSWER 2 OF 65 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
AN 1988:120137 BIOSIS
DN PREV198834055999; BR34:55999
TI OBSERVATIONS ON THE DEVELOPMENT AND CLINICAL USE OF ***ARTIFICIAL*** ***SKIN*** AN ATTEMPT TO EMPLOY REGENERATION RATHER THAN SCAR FORMATION
IN WOUND HEALING.
AU BURKE J F [Reprint author]
CS DEP SURG, MASS GEN HOSP, FRUIT ST, BOSTON, MASS 02114, USA
SO Japanese Journal of Surgery, (1987) Vol. 17, No. 6, pp. 431-438.
CODEN: JJSGAY. ISSN: 0047-1909.
DT Article
FS BR
LA ENGLISH
ED Entered STN: 29 Feb 1988
Last Updated on STN: 29 Feb 1988

L13 ANSWER 3 OF 65 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
AN 1987:24516 BIOSIS
DN PREV198783014450; BA83:14450
TI THE VASCULARIZATION OF ***ARTIFICIAL*** ***SKIN*** GRAFTS IN RATS
ITS MODIFICATION BY PROTAMINE.
AU EHRLICH H P [Reprint author]; JUNG W K; COSTA D E; RAJARATNAM J B M
CS SHRINERS BURNS INSTITUTE, MASSACHUSETTS GENERAL HOSPITAL, HARVARD MEDICAL
SCHOOL, BOSTON, MASACHUSETTS 02114, USA
SO Experimental and Molecular Pathology, (1986) Vol. 45, No. 1, pp. 68-75.
CODEN: EXMPA6. ISSN: 0014-4800.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 14 Dec 1986
Last Updated on STN: 14 Dec 1986
AB Artifical skin is a recent development in the clinical care of the severely burned patient. Its manufacture involves the covalent bonding of collagen and polysaccharide, followed by the coating of one surface with a thin layer of silicone rubber. Neovascularization and its modification in ***artificial*** ***skin*** were studied. Experimental ***artificial*** ***skin*** was grafted onto rats and examined for vascular growth in the graft at 7 days. This was revealed by latex-perfused vascular casts which were processed for histological study. An area including the graft bed and graft matrix was viewed and examined for latex-filled vessels. Thirty-seven percent of the total vessels, identified by residual latex, had grown into the graft. When ***artificial*** ***skin*** was treated with protamine at 10 mg/ml buffered saline solution before grafting, only 6% of the total perfused blood vessels were found in the graft matrix. The remainder was found in the graft bed. Moreover, increases in the numbers of perfused blood vessels and ***vessel*** diameters were observed in the graft bed at the interface below the graft pretreated with protamine. Protamine inhibited ***vessel*** growth into the matrix, but promoted an increased number of dilated blood vessels in the surrounding graft bed. These dilated vessels were related to an altered ***vessel*** architecture.

L13 ANSWER 4 OF 65 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 2001425745 EMBASE
TI Influence of recipient-bed isolation on survival rates of skin-flap transfer in rats.
AU Jones M.; Zhang F.; Blain B.; Guo M.; Cui D.; Dorsett-Martin W.; Lineaweaver W.C.
CS Dr. W.C. Lineaweaver, Division of Plastic Surgery, University of Mississippi Med. Ctr., 2500 North State Street, Jackson, MS 39216, United States
SO Journal of Reconstructive Microsurgery, (2001) 17/8 (653-659).
Refs: 37
ISSN: 0743-684X CODEN: JRMIE2
CY United States
DT Journal; Article
FS 009 Surgery
LA English
SL English
AB The effect of recipient-bed isolation with ***artificial*** barriers on ***skin*** -flap survival, compared to flap transfer without bed isolation, was evaluated in a modified rat epigastric skin-flap model. The pattern of blood flow in the raised flap with a proximal axial portion and distal random portion was confirmed by laser Doppler flowmetry. Forty rats were divided into four groups. Three of the groups had one of three different artificial barriers - silicone, polypropylene, or gelatin sponge. In each of these three groups, one of the artificial barriers was placed between the flap and its recipient bed after flap replacement. The flaps without bed isolation (Group 4) were used as controls. The survival area was measured 7 days postoperatively. Results demonstrated that necrosis in the groups with silicone and polypropylene barriers was significantly higher than in the controls. Histologically, neovascularization was shown in the flaps without artificial barriers. Foreign-body reactions were observed in the flaps with bed isolation and among these, severe inflammation and congestion were seen in the flaps with polypropylene isolation. In this study, the authors demonstrated that the random portion of a rat skin flap could survive partially through imbibition of plasma and the ingrowth of new vessels from the recipient bed. This neovascularization can be prevented by recipient-bed isolation with an artificial barrier. Bed isolation with a silicone sheet is suggested for use in the study of rat skin-flap survival.

L13 ANSWER 5 OF 65 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 2001227645 EMBASE
TI Reconstructive surgery with a dermal regeneration template: Clinical and histologic study.
AU Moiemen N.S.; Staiano J.J.; Ojeh N.O.; Thway Y.; Frame J.D.
CS N.S. Moiemen, University Hospital Birmingham, Raddlebarn Road; Selly Oak, Birmingham B29 6JD, United Kingdom. nmoiemen@aol.com
SO Plastic and Reconstructive Surgery, (2001) 108/1 (93-103).
Refs: 7
ISSN: 0032-1052 CODEN: PRSUAS
CY United States
DT Journal; Article
FS 009 Surgery
027 Biophysics, Bioengineering and Medical Instrumentation
LA English
SL English
AB Integra ***artificial*** ***skin*** was introduced in 1981 and its use in acute surgical management of burns is well established, but Integra has also been used in patients undergoing reconstructive surgery. Over a period of 25 months, the authors used Integra to cover 30 anatomic sites in 20 consecutive patients requiring reconstructive surgery and then analyzed the clinical and histologic outcomes. The most common reason for surgery was release of contracture followed by resurfacing of tight or painful scars. The authors assessed patients' satisfaction using a visual analog scale and scar appearance using a modified Vancouver Burn Index Scale. They evaluated the progress of wound healing by examining weekly punch-biopsy specimens with standard and immunohistochemical stains. Patients reported a 72 percent increase in range of movement, a 62 percent improvement in softness, and a 59 percent improvement in appearance compared with their preoperative states. Pruritus and dryness were the main complaints, and neither was improved much. Four distinct phases of dermal regeneration could be demonstrated histologically: imbibition, fibroblast migration, neovascularization, and remodeling and maturation. Full vascularization of the neodermis occurred at 4 weeks. The color of the wound reflected the state of neodermal vascularization. No adnexa, nerve endings, or elastic fibers were seen in any of the specimens. The new collagen was histologically indistinguishable from normal dermal collagen. The authors conclude that Integra is a useful tool in reconstructive surgery. The additional cost of its use can be justified by its distinct benefits compared with current methodology.

L13 ANSWER 6 OF 65 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 2000421648 EMBASE
TI Tissue engineering: Challenges and opportunities.
AU Chapekar M.S.
CS M.S. Chapekar, Natl. Inst. of Standards/Technology, Technology Administration, U.S. Department of Commerce, 100 Bureau Drive, Gaithersburg, MD 20899, United States. Mrunal.Chapekar@nist.gov
SO Journal of Biomedical Materials Research, (2000) 53/6 (617-620).
Refs: 41
ISSN: 0021-9304 CODEN: JBMRBG
CY United States
DT Journal; Article
FS 009 Surgery
013 Dermatology and Venereology
022 Human Genetics
027 Biophysics, Bioengineering and Medical Instrumentation
033 Orthopedic Surgery
LA English
SL English
AB This article reviews the key developments in the tissue engineering field over the past several years. The issues related to the development of the components of tissue-engineered products including cells, biomaterials, and biomolecules, and their integration into safe and effective products are presented. Moreover, the article outlines the challenges to the commercialization of tissue-engineered products, and highlights the ongoing efforts by the American Society for Testing and Materials (ASTM) in developing standards for tissue-engineered medical products. Furthermore, funding opportunities at the Advanced Technology Program at NIST are presented. (C) 2000 John Wiley and Sons, Inc.

L13 ANSWER 7 OF 65 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 2000043347 EMBASE
TI Generation of an autologous tissue (matrix) flap by combining an arteriovenous shunt loop with ***artificial*** ***skin*** in rats: Preliminary report.
AU Tanaka Y.; Tsutsumi A.; Crowe D.M.; Tajima S.; Morrison W.A.
CS Prof. W.A. Morrison, Bernard O'Brien Institute Microsurg., 42 Fitzroy Street, Fitzroy, Vic. 3065, Australia
SO British Journal of Plastic Surgery, (2000) 53/1 (51-57).
Refs: 18
ISSN: 0007-1226 CODEN: BJPSAZ
CY United Kingdom
DT Journal; Article
FS 009 Surgery
013 Dermatology and Venereology
LA English
SL English
AB The present experiment was designed to investigate the possibility of prefabricating a tissue flap in a rat by combining an arteriovenous (A-V) shunt loop with ***artificial*** ***skin*** dermis (AS). The A-V fistula loop was constructed between the right femoral artery and vein by the interposition of a vein graft and the loop was wrapped with a folded sheet of AS and buried beneath the inguinal skin. In the control group the folded sheet of AS was inserted without a ***vessel*** loop and embedded in the inguinal region as in the experimental group. There were three experiments. In experiment 1, the total volume of the generated

tissue formed within the AS was calculated after 4 weeks in the experimental and control groups. In experiment 2, the AS in the experimental group was harvested at 2 (group 1) and 4 (group 2) weeks after insertion to assess the change in morphology over time. In experiment 3, full thickness skin grafts were placed over the generated tissue of the experimental groups to investigate the possibility of creating skin flaps. The total volume of tissue generated in the experimental group was significantly greater than in the control group (P < 0.01). Histological and carbon injection studies suggest that the new capillary bed is derived from the graft loop vessels and tissue generation and organisation of the AS were further advanced in group 2 than in group 1. The skin grafts placed over the tissues generated showed complete survival and could be raised as island flaps in both groups. (C) 2000 The British Association of Plastic Surgeons.

L13 ANSWER 8 OF 65 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 1998171387 EMBASE
TI Effect of cultured endothelial cells on ***angiogenesis*** in vivo.
AU Soejima K.; Negishi N.; Sasaki K.
CS Dr. K. Soejima, 7820 Seawall Blvd. 233, Galveston, TX 77551, United States
SO Plastic and Reconstructive Surgery, (1998) 101/6 (1552-1560).
Refs: 35
ISSN: 0032-1052 CODEN: PRSUAS
CY United States
DT Journal; Article
FS 009 Surgery
LA English
SL English
AB The purpose of this study is to evaluate the effect of cultured endothelial cells on ***angiogenesis*** in vivo. Endothelial cells obtained from thoracic aorta of male Wistar rats were cultured in thermoresponsive dishes, which are tissue culture polystyrene dishes bound with thermoresponsive poly (N-isopropylacrylamide). Using the thermoresponsive dishes, a confluent layer of endothelial cells can be detached as an intact sheet by low temperature treatment. The obtained sheets of cultured endothelial cells were grafted to 3 x 3 cm full-thickness skin defects that had been made on the backs of rats in combination with either free ***skin*** grafts or ***artificial*** dermis grafts. Histologic examinations were performed. The findings showed that, with each of the grafting procedures, the number of vessels in a unit area (1.0 x 10- 4 mm2) was significantly larger in the group with transplantation of cultured endothelial cells. This result suggests that the cultured vascular endothelial cells exert an ***angiogenic*** effect at the graft site.

L13 ANSWER 9 OF 65 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 93323378 EMBASE
DN 1993323378
TI Prostaglandin cyclooxygenase products but not thromboxane A2 are involved in the pathogenesis of erythromelalgia in thrombocythaemia.
AU Michiels J.J.; Zijlstra F.J.
CS Department of Haematology, University Hospital Dijkzigt, Molewaterplein 40,3015 GD Rotterdam, Netherlands
SO Mediators of Inflammation, (1993) 2/5 (385-389).
ISSN: 0962-9351 CODEN: MNFLEF
CY United Kingdom
DT Journal; Article
FS 013 Dermatology and Venereology
025 Hematology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LA English
SL English
AB Fluid of ***artificial*** blisters from erythromelalgic ***skin*** areas in primary thrombocythaemia contained a high amount of prostaglandin-E-like activity. Dazoxiben did not alleviate the erythromelalgia in patients with primary thrombocythaemia despite complete inhibition of platelet malondialdehyde and thromboxane B2 synthesis and no inhibition of prostaglandin-E-like material. During a 10-day dazoxiben treatment period, persistent erythromelalgia was associated with a significant shortened mean platelet life span of 3.2 days. During subsequent treatment with low dose acetylsalicylic acid daily complete relief of erythromelalgia was associated with inhibition of platelet prostaglandin endoperoxide production and correction of platelet mean life span to normal, 7.9 days. These observations indicate that prostaglandin E2, or another prostaglandin endoperoxide metabolite, is involved in the pathogenesis of erythromelalgia. The presented study does not give one single clue as to the origin (platelet, ***vessel*** wall or other) of the prostanoid, but very likely originates from platelets because a very low dose of acetylsalicylic acid (250 to 500 mg every other day), which irreversibly inhibits platelet cyclooxygenase, is highly effective in the prevention of erythromelalgia in thrombocythaemia.

L13 ANSWER 10 OF 65 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 92257701 EMBASE
DN 1992257701
TI Tissue engineering in the USA.
AU Nerem R.M.
CS Biomechanics Laboratory, School of Mechanical Engineering, Georgia Institute of Technology,Atlanta, GA 30332-0405, United States
SO Medical and Biological Engineering and Computing, (1992) 30/4 (8-12).
ISSN: 0140-0118 CODEN: MBECDY
CY United Kingdom
DT Journal; Conference Article
FS 027 Biophysics, Bioengineering and Medical Instrumentation
029 Clinical Biochemistry
LA English
SL English
AB Tissue engineering is the application of the principles and methods of engineering and the life sciences towards the development of biological substitutes to restore , maintain or improve functions. It is an area which is emerging in importance worldwide. In the USA it has been actively fostered by the National Science Foundation, both through research grants and the sponsorship of a series of workshops starting in 1988. This brief review of activities in the USA focuses on cell culture technology as a foundation for tissue engineering and then discusses examples of applications. These include ***artificial*** ***skin*** and the use of encapsulated cells in the development of bioartificial organs. Also discussed is the reconstitution of a blood ***vessel*** in culture, both for use in basic research and for implantation as an artificial blood ***vessel*** in bypass surgery. In conclusion, other potential applications are mentioned as well as generic areas of technology for future development.

L13 ANSWER 11 OF 65 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 82230239 EMBASE
DN 1982230239
TI Medical applications of polymeric materials.
AU Bruck S.D.
CS Med. Technol. Assess. Group, Stephen D. Bruck Assoc., Bethesda, MD 20814,
United States
SO Medical Progress through Technology, (1982) 9/1 (1-16).
CODEN: MDPTBG
CY Germany
DT Journal
FS 037 Drug Literature Index
030 Pharmacology
027 Biophysics, Bioengineering and Medical Instrumentation
009 Surgery
LA English

L13 ANSWER 12 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:269010 CAPLUS
DN 136:268201
TI Processes for preparation of new collagen-based supports for tissue engineering and the resulting biomaterials
IN Abdul, Malak Nabil; Andre, Valerie; Huc, Alain
PA Coletica, Fr.
SO Fr. Demande, 43 pp.
CODEN: FRXXBL
DT Patent
LA French
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FR 2809313	A1	20011130	FR 2001-6899	20010525 <--
FR 2809412	A1	20011130	FR 2000-6748	20000526 <--
WO 2001091821	A1	20011206	WO 2001-FR1631	20010525 <--
W: DE, JP, KR, US				
DE 10196234	T	20030417	DE 2001-10196234	20010525
JP 2003534102	T2	20031118	JP 2001-587833	20010525
FR 2809314	A1	20011130	FR 2001-6919	20010528 <--
PRAI FR 2000-6743	A	20000526		
FR 2000-6748	A	20000526		
US 2000-616526	A	20000714		

AB A composite product formed by a collagen support comprises a porous collagen layer coated on a collagen membrane made by drying a collagen gel in the air or a gas. One of the layers contains live normal or genetically-modified cells, or malignant cells. The composite is used as a support for making ***artificial*** ***skin*** . Human keratinocytes were cultured on the composite product prepd. according to above method for use as ***artificial*** ***skin*** .

L13 ANSWER 13 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:924330 CAPLUS
DN 136:58875
TI Biomedical material and process for making same
IN Noishiki, Yasuharu; Miyata, Teruo; Ito, Hiroshi
PA Koken Co. Ltd., Japan
SO U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2001053839	A1	20011220	US 2001-878261	20010612 <--

WO 2001097874 A1 20011227 WO 2001-JP5026 20010613 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1292341 A1 20030319 EP 2001-941035 20010613
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2003535653 T2 20031202 JP 2002-503357 20010613
PRAI JP 2000-183627 A 20000619
WO 2001-JP5026 W 20010613

AB A chem. crosslinked material comprise a natural material or a deriv. having crosslinks formed by the combination of a primary crosslinking agent and an enhancer compd., wherein the crosslinks formed comprise crosslinks which include at least 1 addnl. hydroxyl group and/or at least one addnl. linear ether linkage as compared to crosslinks formed by the primary crosslinking agent alone. The materials provide a chem. crosslinked material that has favorable antigenicity/flexibility characteristics. Crosslinking of a heart membrane by using glutaraldehyde and isocyanate lowers the moisture content of the membrane, but it is improved by introducing at least 1 new hydroxyl group and ether bonding to the process. T. His tendency was also similarly effective when epoxy was used for crosslinking, and it was made clear that the moisture content was improved by crosslinking with epoxy alone.

L13 ANSWER 14 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:903875 CAPLUS
DN 136:25089
TI Production and use of microvessels in a fibronectin-containing gel
IN Bothwell, Alfred L. M.; Pober, Jordan S.; Schechner, Jeffrey S.; Zheng, Lian
PA Yale University, USA
SO PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001093880	A1	20011213	WO 2001-US18034	20010605 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 2000-208931P P 20000605
US 2001-279797P P 20010330

AB The present invention relates to the development of new blood vessels. More specifically, this invention relates to compns. and methods for forming cultured endothelial cells into tubes within a three-dimensional gel. This invention also relates to implanting the resultant gels into animals wherein the tubes undergo remodeling into complex microvessels lined by the endothelial cells. The compns. and methods of the present invention have applications in all aspects of tissue and organ transplantation and grafting. The invention finds particular use in the grafting of engineered skin onto recipients with impaired vascularization. In addn., the present invention identifies genes and gene products which are differentially expressed in immature, maturing and mature microvessels.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 15 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:885851 CAPLUS
DN 136:11272
TI Collagen-based supports for tissue engineering and preparation of biomaterials
IN Abdul, Malak Nabil; Andre, Valerie; Huc, Alain
PA Coletica, Fr.
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001091821 A1		***20011206***	WO 2001-FR163120010525	

W: DE, JP, KR, US
PRAI FR 2000-6743 20000526
FR 2000-6748 20000526
US 2000-616526 20000714

AB The invention concerns a composite product forming a collagen support comprising at least a porous collagen layer coated on at least a surface with a substantially compact collagen membrane produced either with a collagen film prepd. by curing, preferably air-cured or in a gaseous fluid, a collagen gel, or by a highly compressed collagen sponge. Advantageously, at least one of the two layers, resp. the porous layer and the substantially compact membrane, comprises living cells, normal or genetically modified, or malignant, in particular derived from young or old subjects. The invention enables to provide a composite product forming a collagen support for making artificial skins designed in particular for testing in vitro the efficacy of potentially active substances or for reconstructing in vivo of damaged skin zones. Collagen from veal skin was prepd. and crosslinked with diphenylphosphorylazide. Use of the above collagen in human fibroblast culture and prepn. of ***artificial*** ***skin*** is disclosed.
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 16 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:798098 CAPLUS
DN 135:348967
TI Native protein mimetic fibers, fiber networks and fabrics for medical use
IN Chaikof, Elliot L.; Conticello, Vincent; Huang, Lei; Nagapudi, Karthik
PA Emory University, USA
SO PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001080921	A2	20011101	WO 2001-US12918	20010420 <--
WO 2001080921	A3	20020228		

W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR
EP 1274469 A2 20030115 EP 2001-928716 20010420
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 2000-198792P P 20000420
US 2000-221828P P 20000728
WO 2001-US12918 W 20010420

AB The present disclosure provides spun fibers of proteins useful for the fibers, fiber networks and nonwoven fabrics for medical use, with these materials characterized by good biocompatibility properties (e.g., low tendency toward thromboses and inflammation when implanted into a human or animal). These materials can be fabricated from gelatin, collagen or elastin-mimetic proteins, functionalized proteins of the foregoing types, crosslinked functionalized proteins of the foregoing types, and there may be incorporated nonproteinaceous polymers and/or therapeutic proteins or other medicinal compds. Addnl., there may be living cells colonized on the material of the present invention or living cells may be incorporated during the fabrication process. These materials can be used in medical applications including, without limitation, vascular grafts, reinforcement of injured tissue, wound healing, artificial organs and tissues, prosthetic heart valves and prosthetic ureters.

L13 ANSWER 17 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:701110 CAPLUS
DN 136:42767
TI Bioactivity and test grafting of acellular dermal matrix containing fibroblasts
AU Xiao, Shichu; Xia, Zhaofan; Yang, Jun; Zhang, Suzhen
CS Department of Burn, The Second Military Medical University, Shanghai, 200433, Peop. Rep. China
SO Zhonghua Shaoshang Zazhi (***2001***), 17(4), 231-233
CODEN: ZSZHA5; ISSN: 1009-2587
PB Zhonghua Shaoshang Zazhi Bianjibu
DT Journal
LA Chinese

AB Thr bioactivity of acellular dermal matrix with fibroblasts and its role as dermal skeleton were studied. Human fibroblasts (HFs) were planted onto the surface of acellular dermal matrix (ADM) to form living dermal substitute. The IL-6, IL-8 and TGF contents in the supernatant of the culture of HF-ADM were detd. with ELISA method, and the secretion of hyaluronic acid and laminin from extracellular matrix was measured with RIA method. The speed of vascularization and the wound contracture rate were obsd. after the dermal substitute was grafted on the full skin loss wound of Balb/c-nu mice (nude mice). HFs grew very well after being planted onto ADM so as to form a single layer of cellular membrane. Many kinds of cytokines and extracellular matrix components were secreted. Compared with simple acellular dermal grafting, the vascularization was accelerated, and the wound contracture rate decreased, after the living dermal substitute being grafted on the wound. The ADM seeded with HFs exhibited excellent bioactivity and might be an optimal dermal substitute.

L13 ANSWER 18 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:361565 CAPLUS
DN 135:200374
TI Cytotoxicity and immunogenicity of Sacchachitin and its mechanism of action on skin wound healing
AU Hung, Wei-Sheng; Fang, Chia-Lang; Su, Ching-Hua; Lai, Wen-Fu T.; Chang, Yu-Chi; Tsai, Yu-Hui
CS Graduate Institute of Cell and Molecular Biology, Taipei Medical University, Taipei, 110, Taiwan

SO Journal of Biomedical Materials Research (***2001***), 56(1), 93-100
CODEN: JBMRBG; ISSN: 0021-9304
PB John Wiley & Sons, Inc.
DT Journal
LA English
AB Sacchachitin membrane, a weavable skin substitute made from the residual fruiting body of Ganoderma tsugae, has been demonstrated to promote skin wound healing. Prior to its clin. application, it is crit. to learn more about any possible cytotoxicity, immunogenicity, or allergy response, and at least some of its mechanism(s) of action(s). In the present studies, it has been found that Sacchachitin suspension at less than 0.05% shows no cytotoxicity to the primary culture of rat fibroblasts. However, at higher concns. (.gtoreq.0.1%), it does reduce the growth of fibroblasts, based on MTT assays. This might be caused by pos. charges on chitin mols. that are too strong, and may be harmful to the cell membrane. Sacchachitin showed no immunogenicity after it was inoculated into rats three times; however, the unmodified, purified rabbit type I and type II collagens did. S.c. injection of Sacchachitin suspension into rats showed no gross allergic responses on skin. Nevertheless, it did cause local acute inflammation, as obsd. by histol. investigation. This is similar to what occurred in the wound site covered with Sacchachitin membrane. The chemotactic effect of Sacchachitin was exhibited in both intact and wounded skin tissues. This may be one of the initial beneficial effects of Sacchachitin membrane to wound healing. The rapid acute inflammatory process was followed by the appearance of ***angiogenesis*** and granulation tissue formation, which occurred earlier than it normally would. Coverage of the wound area with Sacchachitin membrane also induced an earlier formation of scar tissue to replace the granulation tissue. A 1.5 .times. 1.5 cm2 wound area covered by Sacchachitin completely healed by 21 days, while that covered with cotton gauze did not. Therefore, Sacchachitin is a safe biomaterial for use as a wound dressing for skin healing. Its promoting action for wound healing might be due to its chemotactic effect for inflammatory cells. This, in turn, may facilitate subsequent ***angiogenesis*** , granulation tissue formation, and faster new tissue formation, leading to faster wound healing.
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 19 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:247214 CAPLUS
DN 134:261256
TI Viral vector with ***angiogenic*** factor-encoding nucleic acid for tissue flap ***angiogenesis***
IN Crystal, Ronald G.; Rosengart, Todd K.
PA Cornell Research Foundation, Inc., USA
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001023003	A1	20010405	WO 2000-US26777	20000928 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-406345 A 19990928
AB The invention provides a method of increasing vascularity in a tissue flap. The method comprises contacting a tissue flap with a viral vector, which viral vector comprises a nucleic acid sequence encoding an ***angiogenic*** factor, whereby the nucleic acid sequence encoding the ***angiogenic*** factor is expressed in the tissue flap and vascularity in the tissue flap is increased.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 20 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:776229 CAPLUS
DN 134:43007
TI Desktop manufacturing of complex objects, prototypes and biomedical scaffolds by means of computer-assisted design combined with computer-guided 3D plotting of polymers and reactive oligomers
AU Landers, Rudiger; Mulhaupt, Rolf
CS Institut fur Makromolekulare Chemie und Freiburger Materialforschungszentrum der Albert-Ludwigs-Universitat, Freiburg i.Br., D-79104, Germany
SO Macromolecular Materials and Engineering (***2000***), 282, 17-21
CODEN: MMENFA; ISSN: 1438-7492
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB Computer-assisted design and image processing were combined with computer-guided one- and two-component air-driven three-dimensional [3D] dispensing of hot melts, solns., pastes, dispersions of polymers and monomers and reactive oligomers to produce solid objects with complex shapes and tailor-made internal structures. During the 3D plotting process either individual microdots or microstrands were positioned to construct complex objects, fibers, tubes, and scaffolds similar to non-woven structures. The resoln. was about 200 .mu.m and depended upon inner nozzle diam., air pressure, plotting speed, rheol., and plotting medium. Plotting in liq. media with densities similar to that of the dispensing liq. eliminated the need for construction of temporary support structures. The design capabilities of this computer-guided 3D plotting process was demonstrated using conventional moisture-curable acetoxysilane-based silicone resin.
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs 21-40

L13 ANSWER 21 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:756744 CAPLUS
DN 133:329622
TI Osteopontin-derived chemotactic and inhibitory peptides and therapeutic uses therefor
IN Ashkar, Samy
PA Children's Medical Center Corp., USA
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000063247	A2	20001026	WO 2000-US10344	20000417 <--
WO 2000063247	A3	20010208		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1175442	A2	20020130	EP 2000-926068	20000417

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

BR 2000009767	A	20020430	BR 2000-9767	20000417
JP 2002543775	T2	20021224	JP 2000-612333	20000417
US 2001036921	A1	20011101	US 2000-729873	20001205 <--

PRAI US 1999-129764P P 19990415
WO 2000-US10344 W 20000417
OS MARPAT 133:329622
AB Osteopontin-derived chemotactic and inhibitory peptides are described. Methods of using these peptides therapeutically, e.g for promoting wound healing and preventing metastasis, are also described.

L13 ANSWER 22 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:628043 CAPLUS
DN 133:227859
TI Bioabsorbable, biocompatible polymers for tissue engineering
IN Williams, Simon F.
PA Tepha, Inc., USA
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000051662	A1	20000908	WO 2000-US5676	20000303 <--

W: AU, CA, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

EP 1159015	A1	20011205	EP 2000-916064	20000303 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

JP 2002537906	T2	20021112	JP 2000-602325	20000303
US 6514515	B1	20030204	US 2000-518123	20000303
US 2003072784	A1	20030417	US 2002-289479	20021106

PRAI US 1999-122827P P 19990304
US 2000-518123 A3 20000303
WO 2000-US5676 W 20000303
AB Bioabsorbable biocompatible polymers which provide a good match between their properties and those of certain tissue structures are provided. The bioabsorbable biocompatible polymers can be prepd. with tensile strengths, elongation to breaks, and/or tensile modulus (Young's modulus) values of the tissues of the cardiovascular, gastrointestinal, kidney and genitourinary, musculoskeletal, and nervous systems, as well as those of the oral, dental, periodontal, and skin tissues. Methods for processing the bioabsorbable biocompatible polymers into tissues engineering devices are also provided.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 23 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:535199 CAPLUS
DN 133:155432
TI Preparation of biomaterials formed by nucleophilic addition reaction to conjugated unsaturated polymers
IN Hubbell, Jeffrey A.; Elbert, Donald; Lutolf, Matthias; Pratt, Alison; Schoenmakers, Ronald; Tirelli, Nicola; Vernon, Brent
PA Switz.
SO PCT Int. Appl., 119 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000044808	A1	20000803	WO 2000-US2608	20000201 <--
W: AU, BR, CA, CN, CZ, GE, HU, ID, IL, IS, JP, KR, MX, NO, NZ, PL, RO, RU, SG, TR, UA, US, YU				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2359318	AA	20000803	CA 2000-2359318	20000201 <--
EP 1181323	A1	20020227	EP 2000-910049	20000201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002535108	T2	20021022	JP 2000-596061	20000201
PRAI US 1999-118093P	A2	19990201		
WO 2000-US2608	W	20000201		

AB The invention features polymeric biomaterials formed by nucleophilic addn. reactions to conjugated unsatd. groups. These biomaterials may be used for medical treatments. Thus, polyethylene glycol triacrylate was dissolved in pH 8 50-mM HEPES buffered saline at 20% with 2% albumin. PEG dithiol was dissolved in pH 5.6 1-mM MES buffered saline at 20%. The liq. soln. was added to cyclohexane contg. Hypermer B239. The polymd., protein-contg. spheres were then washed with cyclohexane to remove surfactant, followed by drying in vacuum to remove cyclohexane. The particles were then resuspended in pH 7.4 HEPES buffered saline. Protein concns. in the resuspending medium were detd. from a concn. std. curve for albumin at 280 nm.
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 24 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:256645 CAPLUS
DN 133:109884
TI Enhanced vascularization of cultured skin substitutes genetically modified to overexpress vascular endothelial growth factor
AU Supp, Dorothy M.; Supp, Andrew P.; Bell, Sheila M.; Boyce, Steven T.
CS Research Department, Shriners Burns Hospital, Shriners Hospitals for Children, Cincinnati, OH, 45229, USA
SO Journal of Investigative Dermatology (***2000***), 114(1), 5-13
CODEN: JIDEAE; ISSN: 0022-202X
PB Blackwell Science, Inc.
DT Journal
LA English
AB Cultured skin substitutes have been used as adjunctive therapies in the treatment of burns and chronic wounds, but they are limited by lack of a vascular plexus. This deficiency leads to greater time for vascularization compared with native skin autografts and contributes to graft failure. Genetic modification of cultured skin substitutes to enhance vascularization could hypothetically lead to improved wound healing. To address this hypothesis, human keratinocytes were genetically modified by transduction with a replication incompetent retrovirus to overexpress vascular endothelial growth factor, a specific and potent mitogen for endothelial cells. Cultured skin substitutes consisting of collagen-glycosaminoglycan substrates inoculated with human fibroblasts and either vascular endothelial growth factor-modified or control keratinocytes were prepd., and were cultured in vitro for 21 days. Northern blot anal. demonstrated enhanced expression of vascular endothelial growth factor mRNA in genetically modified keratinocytes and in cultured skin substitutes prepd. with modified cells. Furthermore, the vascular endothelial growth factor-modified cultured skin substitutes secreted greatly elevated levels of vascular endothelial growth factor protein throughout the entire culture period. The bioactivity of vascular endothelial growth factor protein secreted by the genetically modified cultured skin substitutes was demonstrated using a microvascular endothelial cell growth assay. Vascular endothelial growth factor-modified and control cultured skin substitutes were grafted to full-thickness wounds on athymic mice, and elevated vascular endothelial growth factor mRNA expression was detected in the modified grafts for at least 2 wk after surgery. Vascular endothelial growth factor-modified grafts exhibited increased nos. of dermal blood vessels and decreased time to vascularization compared with controls. These results indicate that genetic modification of keratinocytes in cultured skin substitutes can lead to increased vascular endothelial growth factor expression, which could prospectively improve vascularization of cultured skin substitutes for wound healing applications.
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 25 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:65762 CAPLUS
DN 132:127684
TI Wound healing efficacy of rat stromal cells combined with spongy collagen matrix (Pelnac)
AU Mitsuno, Hiroya; Kawanishi, Koichi; Inada, Yuji; Miyamoto, Seiji; Yoshikawa, Takafumi; Ichijima, Kunio
CS Dep. Emerg. Crit. Care Med., Nara Med. Univ., Japan
SO Journal of Nara Medical Association (***1999***), 50(6), 543-550
CODEN: JNMAFJ
PB Nara Medical Association
DT Journal
LA Japanese
AB Recently, reconstruction of ***skin*** defects using ***artificial*** dermis composed of an outer layer of silicone and an inner sponge layer of collagen has been developed and is performed clin. When the artificial dermis is grafted onto a total skin defect, the inner sponge layer spontaneously converts into dermis-like connective tissue. However, 2 or 3 wk after the application of the artificial dermis, a secondary split-thickness skin graft on the dermis-like tissue is required for skin resurfacing. Until the secondary skin graft, problems of wound infection or tissue fluid leakage persist. In this study, the authors investigated the effect of cultured bone marrow cells on the synthesis of dermis-like tissue using artificial dermis in rats. Two rats were sacrificed to harvest bone marrow cells from the femurs, and the cells were cultured for 10 days. Full thickness skin defects (3 cm .times. 4 cm) were made on the backs of 20 male Fisher rats, then the rats were divided into 5 groups. The artificial dermis contg. 104 (105, 5 .times. 106)/mL bone marrow cells were grafted on the skin defects of rats in Group 1 (2, 3, 4). In Group 5, artificial dermis only was grafted. After 10 days, the grafted artificial dermis was harvested, and histol. examn. was performed. In each group, mean thickness of dermis-like tissue, which was infiltrated by fibroblasts and capillaries, was measured. The dermis-like tissue was significantly thicker in Groups 1-4 than in Group 5, and was significantly thickest in Group 2. Histol., topical application of bone marrow cells accelerates proliferation of fibroblasts and capillaries in artificial dermis. Therefore, this study suggests the usefulness of bone marrow cells combined with artificial dermis for wound healing.

L13 ANSWER 26 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:747605 CAPLUS
DN 132:313382
TI Biomaterials for regeneration of organs
AU Ito, Yoshihiro
CS Fac. Eng., The Univ. Tokushima, Tokushima, 770-8506, Japan
SO Baiosaiensu to Indasutori (***1999***), 57(11), 737-742
CODEN: BIDSE6; ISSN: 0914-8981
PB Baioindasutori Kyokai
DT Journal; General Review
LA Japanese
AB A review with 24 refs. The very first com. product of ***artificial*** living ***skin*** based on tissue engineering has been launched, and artificial joint cartilage is under development using human cartilage cells. Temporary or permanent template structure is important for bio-artificial organs. The mixt. of basic fibroblast growth factor (bFGF) and matrigel regenerates adipose tissue. Tissue engineering is also applied to drug delivery system for sustained release and to supply of addnl. characteristics by introduction of genes, e.g. growth factor-releasing vascular ***vessel*** . Recent advances in matrix materials are discussed for spatial fine processing, stimulation response as time-based regulation, and regulation of cell functions as apoptosis and differentiation.

L13 ANSWER 27 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:670553 CAPLUS
DN 131:347050
TI Nonviral transfer of genes to pig primary keratinocytes. Induction of ***angiogenesis*** by composite grafts of modified keratinocytes overexpressing VEGF driven by a keratin promoter
AU Del Rio, M.; Larcher, F.; Meana, A.; Segovia, J. C.; Alvarez, A.; Jorcano, J. L.
CS Project on Cell and Molecular Biology, Centro de Investigaciones Energeticas, Medioambientales y Tecnologicas (CIEMAT), Madrid, E-28040, Spain
SO Gene Therapy (***1999***), 6(10), 1734-1741
CODEN: GETHEC; ISSN: 0969-7128
PB Stockton Press
DT Journal
LA English
AB Cultured epithelial grafts have proven to be life-saving in the treatment of large skin losses. It has become apparent that one of the main difficulties of this technol. is the overall poor take of the grafts as a consequence of severely damaged dermal beds. Skin substitutes providing both cultured keratinocytes, as an epidermal layer, and a dermal analogous offer a more suitable material for skin repair. Ex vivo transfer of stroma regeneration-promoting genes to keratinocytes appears to be an attractive strategy for improving the therapeutic action of these grafts. The use of epidermal-specific promoters as expression drivers of exogenous genes results in both high expression levels and stratum specificity, as shown in transgenic mice studies. Most current gene transfer protocols to primary keratinocytes involve transduction of epidermal cells with retroviral vectors. However, transfer of gene constructs harboring these long DNA fragment promoters cannot be achieved through viral transduction.

In this paper, the authors describe a protocol consisting of lipid-mediated transfection, G418 selection and an enhanced green fluorescence protein (EGFP)-based enrichment step for obtaining high levels of transgene-expressing primary keratinocytes. Using this protocol, the cDNA for vascular endothelial growth factor (VEGF), a potent endothelial cell mitogen driven by the 5.2 kb bovine keratin K5 promoter, was stably transfected into pig primary keratinocytes. Genetically modified keratinocytes, expanded on live fibroblast-contg. fibrin gels and transplanted to nude mice as a composite material, elicited a strong ***angiogenic*** response in the host stroma as detd. by fresh tissue examn. and CD31 immunostaining. Since the formation of a well-vascularized wound bed is a crucial step for permanent wound closure, the use of an ' ***angiogenic*** ' composite material may improve wound bed prepn. and coverage with cultured keratinocyte grafts.
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 28 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:659100 CAPLUS
DN 131:277015
TI Two phase thermally deformable biocompatible absorbable polymer matrix for use in medical devices
IN Cooper, Kevin
PA Ethicon, Inc., USA
SO Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 949299	A2	19991013	EP 1999-302598	19990401 <--
EP 949299	A3	20010117		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11332975	A2	19991207	JP 1999-98078	19990405 <--
US 2002016596	A1	20020207	US 2001-978415	20011016

PRAI US 1998-55342 A 19980406
US 2000-497060 A3 20000202
AB An absorbable biocompatible polymeric matrix has a continuous phase that is preferably amorphous. The matrix also has a disperse phase of low melting biocompatible material that acts as scattering centers for light and melts at a temp. lower than the continuous phase of the matrix. This matrix is esp. useful in a variety of medical devices. When this matrix is heated to about the melting temp. of the dispersed phase the matrix undergoes a visual change. This provides a visual cue to a surgeon using the medical devices as to when the device can be safely shaped or manipulated without imparting undue stress to the device. As the medical device cools below the temp. at which it may be safely deformed the matrix resumes its original appearance signalling that it may no longer be safely shaped or manipulated. Thus, a copolymer was obtained from L-lactide and glycolide and this polymer was blended with poly(.epsilon.-caprolactone-co-p-dioxanone). The blend was used to manuf. medical screws, pins, etc.

L13 ANSWER 29 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:419378 CAPLUS
DN 132:227353
TI Effects of added basic fibroblast growth factor on artificial dermis
AU Kawai, Katsuya; Suzuki, Sigehiko; Tabata, Yasuhiko; Ikada, Yoshito; Nishimura, Yoshihiko
CS Grad. Sch. Med., Kyoto Univ., Japan
SO Nessho (***1999***), 25(2), 54-62
CODEN: NESHEG; ISSN: 0285-113X
PB Nippon Nessho Gakkai
DT Journal
LA Japanese
AB BFGF was impregnated in biodegradable gelatin microspheres for sustained-release. The artificial dermis contg. bFGF (100 .mu.g) in free and impregnated form in gelatin microspheres, were implanted into skin defects measuring 2 .times. 2 cm2 in guinea pig back. The results indicated that topical application of bFGF accelerates proliferation of fibroblasts and capillaries, and that bFGF impregnated in gelatin microspheres induces tissue regeneration and neovascularization more rapidly than free bFGF.

L13 ANSWER 30 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:291052 CAPLUS
DN 131:128844
TI Effects of immunoregulatory cytokines on the immunogenic potential of the cellular components of a bilayered living skin equivalent
AU Laning, Joseph C.; DeLuca, Jennifer E.; Hardin-Young, Janet
CS Research and Development, Division of Immunology and Transplantation Sciences, Organogenesis, Inc., Canton, MA, USA
SO Tissue Engineering (***1999***), 5(2), 171-181
CODEN: TIENFP; ISSN: 1076-3279
PB Mary Ann Liebert, Inc.
DT Journal
LA English
AB The purpose of this study was to det. if the immunocompatibility of an allogeneic living skin equiv. (LSE) (Apligraf) would be affected by cytokines that would be potentially present at the wound site. Specifically, the ability of interleukin-1.alpha. (IL-1.alpha.), interleukin-6 (IL-6), or interleukin-12 (IL-12) to induce an allogeneic T cell response to "nonprofessional" antigen presenting cells (APC) was investigated in this series of expts. Since cytokine concns. at the wound site can vary greatly, recombinant IL-1.alpha., IL-6, and IL-12 were used over a wide range of concns. These cytokines were either added directly to a mixed lymphocyte reaction (MLR) culture system or used to pretreat APC prior to use in the MLR culture. The addn. of IL-12, IL-1.alpha., or IL-6 into an MLR was examd. as a possible means of providing the necessary costimulatory signal for functionally deficient APC, such as human keratinocytes (HK) and dermal fibroblasts (HF). While the results show that IL-1.alpha. and IL-12 can significantly augment a primary allogeneic response against appropriately equipped antigen presenting cells, the same was not true for HK or HF. Further expts. showed that pretreatment of HK, HF, or human umbilical vein endothelial cells (HUVEC) with interferon-.gamma. (IFN.gamma.) and either IL-12, IL1.alpha., or IL-6 had no significant affect on their ability to present alloantigen to immune-reactive T lymphocytes over IFN.gamma.-treatment alone. The data suggest that exposure of HK or HF to IL-1.alpha., IL-6, or IL-12 in combination with IFN.gamma. does not provide the addnl. signal(s) required by these cells to effectively present alloantigen to unprimed T cells. The data suggests that exposure to these immunoregulatory cytokines in the wound bed would be unlikely to affect the immuno-compatibility of the LSE.
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 31 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:21716 CAPLUS
DN 130:86209
TI Absorbable, biocompatible aliphatic polyesters of trimethylene carbonate, epsilon-caprolactone and glycolide and their medical use
IN Erneta, Modesto; Vhora, Idrish A.
PA Ethicon, Inc., USA
SO U.S., 9 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5854383	A	19981229	US 1997-944792	19971006 <--
EP 908482	A1	19990414	EP 1998-308074	19981005 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRAI US 1997-944792 A 19971006
AB Absorbable, segmented copolymers comprising glycolide (I), trimethylene carbonate (II) and .epsilon.-caprolactone (III), exhibit a broad range of properties, esp. high strength, low modulus, and fast in vivo absorption, and have a variety of medical uses. The absorbable, segmented copolymers can be processed into filaments, films, foams and molded articles for surgical and medical applications such as burn dressings, fascial substitutes, liver hemostasis devices, bandages, arterial grafts or substitutes, sutures, etc. Thus, a segmented copolymer made by three-stage polymn. of the compn., II:II:I 26:10:12, I 12, and I 40 mol% with heat and stannous octoate catalyst, was extruded and drawn into size 4-0 sutures with orientation. The sutures give 45.0% elongation, 84.7 kpsi modulus, 3.939 lbs straight tensile (0 day), 2.18 lbs (12 days), and 4.53 lbs (0 day) after annealing at 90.degree. for 6 h at 5% relaxation.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 32 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:786899 CAPLUS
DN 130:187055
TI Fibers for tissue repair
AU Yoshioka, Toshio
CS Medical Devices and Diagnostics Research Lab., Toray Industries Inc., Japan
SO Sen'i Gakkaishi (***1998***), 54(11), P/401-P/403
CODEN: SENGA5; ISSN: 0037-9875
PB Sen'i Gakkai
DT Journal; General Review
LA Japanese
AB A review with 9 refs. discussing surgical sutures, hemostatic fibers, ***artificial*** blood vessels, ***artificial*** ***skin*** and ***artificial*** bones.

L13 ANSWER 33 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:706548 CAPLUS
DN 130:107004
TI Future aspects of biomedical and health-care fibers
AU Hayashi, Toshio
CS Research Inst. for Advanced Science Technology, Osaka Prefecture Univ., Japan
SO Sen'i Gakkaishi (***1998***), 54(10), P344-P349
CODEN: SENGA5; ISSN: 0037-9875
PB Sen'i Gakkai
DT Journal; General Review
LA Japanese
AB A review with 10 refs. on applications of synthetic polymers in biomedicine (eg. ***artificial*** ***skin*** and blood ***vessel***) and health care.

L13 ANSWER 34 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:664546 CAPLUS
DN 130:17196
TI In vitro reconstruction of a human capillary-like network in a tissue-engineered skin equivalent
AU Black, Annie F.; Berthod, Francois; L'Heureux, Nicolas; Germain, Lucie; Auger, Francois A.
CS Laboratoire d'Organogenese Experimentale/LOEX, Centre Hospitalier Affilie, Pavillon Saint-Sacrement and Department of Surgery, Faculty of Medicine, Laval University, Quebec City, QC, G1S 4L8, Can.
SO FASEB Journal (***1998***), 12(13), 1331-1340
CODEN: FAJOEC; ISSN: 0892-6638
PB Federation of American Societies for Experimental Biology
DT Journal
LA English
AB For patients with extensive burns, wound coverage with an autologous in vitro reconstructed skin made of both dermis and epidermis should be the best alternative to split-thickness graft. Unfortunately, various obstacles have delayed the widespread use of composite skin substitutes. Insufficient vascularization has been proposed as the most likely reason for their unreliable survival. Our purpose was to develop a vascular-like network inside tissue-engineered skin in order to improve graft vascularization. To reach this aim, we fabricated a collagen biopolymer in which 3 human cell types-keratinocytes, dermal fibroblasts, and umbilical vein endothelial cells-were cocultured. We demonstrated that the endothelialized skin equiv. (ESE) promoted spontaneous formation of capillary-like structures in a highly differentiated extracellular matrix. Immunohistochem. anal. and transmission electron microscopy of the ESE showed characteristics assocd. with the microvasculature in vivo (von Willebrand factor, Weibel-Palade bodies, basement membrane material, and intercellular junctions). We developed the first endothelialized human tissue-engineered skin in which a network of capillary-like tubes is formed. The transplantation of this ESE on human should accelerate graft revascularization by inosculation of its preexisting capillary-like network with the patient's own blood vessels, as it is obsd. with autografts. In addn., the ESE turns out to be a promising in vitro ***angiogenesis*** model.
RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 35 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:531643 CAPLUS
DN 129:280932
TI RGD-enhanced Integra ***artificial*** ***skin***
AU Tschopp, J. F.; Cahn, Fred; Pierschbacher, Michael
CS Integra Life-Sciences Corp., Plainsboro, NJ, 08356, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (***1998***), 39(2), 255
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal
LA English
AB Integra ***artificial*** ***skin*** , now in clin. use, is an example of a tissue-regeneration approach to tissue engineering. Integra ***artificial*** ***skin*** is a bilayer membrane skin replacement system that permanently replaces injured skin with functional autologous tissue. The dermal regeneration layer is composed of crosslinked collagen-glycosaminoglycan copolymer having a controlled pore size and degrdn. rate that promotes tissue ingrowth without causing an inflammatory response. The temporary substitute epidermal layer is composed of synthetic polysiloxane polymer. This product illustrates the principle of using matrix design to impact tissue regeneration for a specific application. Adhesion of the ***artificial*** ***skin*** is enhanced by coupling RGD peptides to lysine side-chains of the protein. This also enhanced ***angiogenesis*** .
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 36 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:528126 CAPLUS
TI RGD-enhanced integra ***artificial*** ***skin*** (IAS)
AU Tschopp, J. F.; Pierschbacher, M. D.
CS Telios Pharmaceuticals, Inc., San Diego, CA, 92121-1299, USA
SO Book of Abstracts, 216th ACS National Meeting, Boston, August 23-27 (***1998***), POLY-415 Publisher: American Chemical Society, Washington, D. C.
CODEN: 66KYA2
DT Conference; Meeting Abstract
LA English
AB Integra LifeSciences Corporation has commercialized one of the first tissue engineering products, INTEGRA ***Artificial*** ***Skin*** (IAS), now in clin. use. IAS is a bilayer membrane skin replacement system that permanently replaces injured skin with functional autologous tissue. The dermal regeneration layer is composed of crosslinked collagen-glycosaminoglycan copolymer having a controlled pore size and degrdn. rate that promotes tissue ingrowth without causing an inflammatory response. Our proposed approach combines new polymer technol. with new, conformationally stabilized peptides that have specific integrin binding capacity. We have characterized, in vitro and in vivo, the biol. activity of an .alpha.v.beta.3 integrin-selective, RGD contg., synthetic peptide covalently coupled to IAS. We demonstrate the high affinity and selectivity of this RGD-contg. peptide in cell attachment and migration assays. In a guinea pig full thickness excisional wound healing model, we demonstrate that peptide-modified IAS promotes increased ***angiogenesis*** by approx. 2 to 3-fold compared to the unmodified templates. Manipulation of these dermal regeneration templates with RGD-contg. peptides could be expected to increase both ***angiogenesis*** and the efficacy of these devices for wound repair applications.

L13 ANSWER 37 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:314499 CAPLUS
DN 129:5003
TI Hydrogels of crosslinked absorbable polyoxaesters, their blends, and devices
IN Jamiolkowski, Dennis D.; Bezwada, Rao S.
PA Ethicon, Inc., USA
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 15

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 841359	A1	19980513	EP 1997-308891	19971105 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2220351	AA	19980506	CA 1997-2220351	19971106 <--
AU 9744377	A1	19980514	AU 1997-44377	19971106 <--
JP 10158375	A2	19980616	JP 1997-319145	19971106 <--
BR 9705441	A	19990629	BR 1997-5441	19971106 <--
ZA 9710017	A	20000807	ZA 1997-10017	19971106 <--

PRAI US 1996-744289 A 19961106
AB Crosslinked aliph. polyoxaesters and their blends may be used to produce hydrogels, surgical devices such as sutures, sutures with attached needles, molded devices, and the like. Polyglycol diacid (mol. wt. .apprx.619) 123.8, diethylene glycol 62.07 g, and dibutyltin oxide 9.96 mg were heated at 180-200.degree. under N to give a polyoxaester with an inherent viscosity 0.70 dL/g (hexafluoroisopropanol, 25.degree.).
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 38 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:147349 CAPLUS
DN 128:201067
TI Osteopontin-derived chemotactic peptides and methods for treatment of chemotaxis-associated diseases
IN Ashkar, Samy
PA Children's Medical Center Corporation, USA; Ashkar, Samy
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9807750	A1	19980226	WO 1997-US14742	19970821 <--
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9739869	A1	19980306	AU 1997-39869	19970821 <--
AU 737694	B2	20010830		
EP 920452	A1	19990609	EP 1997-937338	19970821 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRAI US 1996-23427P P 19960822
WO 1997-US14742 W 19970821
OS MARPAT 128:201067
AB Osteopontin-derived chemotactic peptides are described. The peptides (or antagonists thereof) a useful in treating conditions or diseases assocd. with chemotaxis. The peptides may be used to e.g. treat tumor metastasis and to promote wound healing.
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 39 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1997:733671 CAPLUS
DN 127:362500
TI Artificial organs using cultured animal cells
AU Funatsu, Kazumori; Matsushita, Taku; Ijima, Hiroyuki
CS Fac. Eng., Kyushu Univ., Japan
SO Shin Tanpakushitsu Oyo Kogaku (***1996***), 527-532. Editor(s): Hatano, Masahiro. Publisher: Fuji, Tekuno Shisutemu, Tokyo, Japan.
CODEN: 65GMA7
DT Conference; General Review
LA Japanese
AB A review with 30 refs. on the development of hybrid-type ***artificial*** liver, pancreas, ***skin*** , and blood ***vessel*** .

L13 ANSWER 40 OF 65 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1997:262668 CAPLUS

DN 126:321105
TI Absorbable polyoxaesters for manufacture of surgical devices
IN Bezwada, Rao S.; Jamiolkowski, Dennis D.
PA Ethicon, Inc., USA
SO U.S., 10 pp., Cont.-in-part of U.S. Ser. No. 554,011, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 15

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5618552	A	19970408	US 1996-611530	19960305 <--
	US 5464929	A	19951107	US 1995-399308	19950306 <--
	CN 1154385	A	19970716	CN 1996-121683	19961105 <--
	ZA 9609297	A	19980505	ZA 1996-9297	19961105 <--
	CA 2198989	AA	19970905	CA 1997-2198989	19970303 <--
	EP 794208	A2	19970910	EP 1997-301426	19970304 <--
	EP 794208	A3	19971229		
	R: DE, FR, GB, IT				
	AU 9715074	A1	19970911	AU 1997-15074	19970304 <--
	AU 719104	B2	20000504		
	JP 10053642	A2	19980224	JP 1997-63931	19970304 <--
	ZA 9701870	A	19981204	ZA 1997-1870	19970304 <--
	BR 9701169	A	19981215	BR 1997-1169	19970304 <--
	CN 1166504	A	19971203	CN 1997-109520	19970305 <--
PRAI	US 1995-399308	A2	19950306		
	US 1996-611530	A	19960305		

AB A new aliph. polyoxaesters (Markush structure given) that is bioabsorbable and may be used to produce surgical devices such as sutures, sutures with attached needles, molded devices, and the like is claimed. Polyglycol diacid (mol. wt. about 619) 123.8, diethylene glycol 62.07 g, and dibutylin oxide 9.96 mg were heated at 180.degree.-200.degree. under N until a polymer with an inherent viscosity of 0.70 dL/g (as detd. in hexafluoroisopropanol at 25.degree.) was obtained.

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